OIL & GAS CONSERVATION COMMISSION Meeting: June 20, 1975

Sam Duither-Kingman Co. Magn, 753-2141 Ent. 273 Las Vegas Paving Corp Robt. L. Mendenhall, Pres. 1770 Industrial Rd. Las Vegas 39102 Ellis, Murphy, Halgate & Johnson

Ellis, murphy, Halgate & Johnson 6601 n. Black Carryon Hury-Plat. mahane Co. airport

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MAY 5 1975

0 & G CONS. COMM.

TO:

P. Commercial

Federal Energy Administration Washington, D.C.

SUBJECT: Huge savings of energy seen by Kingman Airport bids

The Mohave County Airport bids opened Monday, May 5, 1975.

The low bidder, Las Vegas Paving Co., submitted the low bid based on recycling the 30 year old pavement.

The direct net savings of energy shows 438,865 gallons of asphalt cement will be saved; 14,250 gallons of deisel fuel needed to haul new aggregate to the project will be saved together with 8,654 gallons of deisel fuel needed to haul new asphalt from the refinery to the project; and approximately 15,000 gallons less burner fuel will be required than the second bidder who proposed using virgin materials.

75 This amount of energy converted to a heat value is billion 612 million BTU's which is sufficient to heat 880 homes for a full year at Kingman.

The design engineers, Ellis, Murphy, Holgate & Johnson and the Mohave County Board of Supervisors should be commended for their foresightedness in providing for the use of this unique conservation technique in the airport project.

Copy to: Oil and Gas Conservation Commission 4515 North 7th Avenue Phoenix, Arizona

Board of Supervisors Mohave County Kingman, Arizona

Descins with CommissionERS.

ERNEST T. ROSHOLT P.E.

REGISTERED IN CALIFORNIA CERTIFICATE #C21390 P.O. BOX 2513 SCOTTSDALE, ARIZONA 85252

JUN 11 1975

0 & G CONS. COMM.

9 June 15

Clear Ins -

Inclased is a June 2 notice to various graceps in an effort to change The Board's mind at Kingman. Hat diknit de much good so I wrote to Sen. Goldwater. Hape that deesn't boomerang" on me ar cause you a lot of letter writing etc. dwrote a personal note on it asking only for a phone call to the board of Supervisor. my personal feelings are that the FAA and the consultant have not stood up and battled sufficiently for what is right. runway is Dr. Howell. I feel that he is personally benefitting from his dicision but costing the country & the tappayere 77,000 and at least 6 mens john (recycling menmore labor as matil hesto be picket up have regraded ite). 4000 man house more for negoligias ever,

Of my him le Prescott will mini plant who was the Ennie

The controversial decision to use ecycled products for the reconstruction of the Mohave Airport cost the County Manager his job.

Even though the recycle procedure was approved by the Federal Aviation Administration and by the consulting engineer firm of Ellis, Murphy, Holgate and Johnson, the Mohave County Board of Supervisors refused to accept the low bid for the recycling. In the controversy both the design engineer, Mr. Max Dittman, formerly with E, M, H & J, and Mr. Sam Tucker, former Mohave County Manager, lost their jobs.

The recycling of the 30 year old asphaltic concrete would have saved 438,865 gallons of virgin asphalt cement; 14,250 gallons of diesel fuel needed to haul virgin aggregate to the site; 8,654 gallons of diesel fuel to haul the virgin asphalt cement to the site; and an additional 15,000 gallons of burner fuel by the recycling process.

The origona Republic

Job switch ordered for Mohave manager

KINGMAN -- County Manager Sam Tücker will be removed from that position and returned to the office of county engineer effective Monday, Dr. James Howell, chairman of the Mohave County Board of Supervisors, said Friday,

Howell did not give a reason for the change, but Tucker said Friday, "I have heard romors that some members of the board have been displeased with my . actions as county manager.'

Tucker has filled the dual post of manager and engincer for the past six months since the dismissal of former manager George Anast. His salary has been

Howell said Friday the board will interview several candidates for the manager's position on Monday. He indicated that one of the candidates is Gene Winship, former county finance director, who resigned this week.

Tucker is the fourth county manager to be relieved of that position since the three-man all-Republican Board of Supervisors assumed office in January 1973.

A large amount of But and med in heater remix will also be send by recycling This amount of energy converted to BTU's or heat value is 75,612,000,000 BTU's which is sufficient to heat 880 homes for a full winter season at Kingman, the county seat of Mohave County.

This is a tragic setback to the recycling industry, to the EPA, and to the energy crisis.

The recycling procedure was to use the old asphaltic concrete of the operational runway and the portions of the airport abandoned by the county in 1958. The Federal Aviation Administration approved the abandonment of portions of the old Army Airport at the request of Mohave County. The design of the airport by Ellis, Murphy, Holgate and Johnson followed the FAA approved airport layout plan.

The present Mohave County Board of Supprvisors have run rough shod over years of work by their predecessors and by the Federal Aviation Administration in planning the airport and programming the funds for the The FAA presently pays 91.06% of the construction engineering studies. cost in Arizona. AD . T page 5 % and wants recycling as it is better job.

The Mohave County Board of Directors have caused a tragic setback to the recycling industry, to the Environmental Protection Agency Guidelines, and to the energy administration in this critical energy crisis.

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Oil and Gus Conservation Commission

STATE OF ARIZONA

45 ISSNOB BET ATENAVE. PHOENIX, ARIZONA 35633 PHONE: (602) 271-5161

AGENDA

Meeting June 20, 1975 8686 North Central Avenue, Suite 106 Phoenix, Arizona 85020

10:00 a.m.

go to goldwister

Forming Re: 13 LM siles

Call to Order

1. Approval of minutes of meeting of April 21, 1975

2. Report of Executive Secretary

3 Report of Enforcement Section

Report of Geology Section

Old Business

New Business

7. Adjourn

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IF YOU ARE UNABLE TO ATTEND THIS MEETING, PLEASE NOTIFY THIS OFFICE AS SOON AS POSSIBLE.

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Oil and Gas Conservation Commission

June 11, 1975

Memo: Commissioners

From: John Bannister, Executive Secretary

Since the last meeting, the Legislature has remained in session, however legislation affecting the Commission, or the industry, has been lacking. As previously reported, all the bills with which this Commission was concerned have failed to pass. In some cases, such as reducing the State's depletion allowance or adding an additional 4% severance tax to existing taxes on production, this failure has been to our advantage. The indications are now that the Legislature will try to adjourn some time around June 13 to 16, 1975.

I attended a meeting concerning geothermal energy at the State Land Department office. In attendance were Marshal Sheridan of ASU, Joseph Rommger of the Geothermal Energy Corporation, Gilbert Freeman of Western Geothermal and Power Corporation, Robert M. Hamman of Geothermal Energy Corporation, Gresham Clacey of Gresham Geophysical Company, Bob Freitas of the Senate Research Staff, Charles Thompson of the Senate Research Staff and Andrew Bettwy, State Land Commissioner. The purpose of this meeting was to explore, in a broad way, what those interested in the development of geothermal energy in the State felt would spur exploration. The opinions expressed were the same as to Federal, State and privately owned lands. These opinions were:

- 1. Have one agency to which the companies were responsible for all purposes. The agency preferred by those present was the Oil and Gas Conservation Commission. It was decided that all leasing, regulatory authority, environmental matters, etc., should be conducted through this one agency. It was realized that under the present State set-up this could not be done but this was one of the opinions expressed.
- 2. That Industry be allowed to explore prior to development

Memo: Commissioners June 11, 1975 Page Two

with a relatively free hand as to crossing boundaries between State, Federal and private lands. It was recognized that permission would have to be obtained as to private lands and set up priority in the event of future exploration on land covered.

- 3. That some "open road" policy be developed between Federal and State controlled acreage so that access could be freely obtained to all parts of the State.
- 4. That bonding requirements be set at a reasonable figure as to the exploratory as differentiated from drilling operations not be made prohibitive.
- 5. That any permits needed to conduct seismic and other type of information gathering work be assured and that this cover at least a minimum fixed period of time, that is that there be no question as to the right to continue seismic and other exploratory information gathering work and that the necessary permits grant ample time in which to conduct this work.
- 6. That necessary permits, etc., be granted on a first comefirst served basis.
- 7. That the State specifically identify the geothermal resource as either a mineral, oil and gas, water, etc., so that specific sets of laws could be applied. They were not particularly concerned with how this might be classed, just that a classification be made.
- 8. That such things as percentage depletion and other tax advantages and incentives be considered.
- 9. That the Industry be assured of the right to use such waters as necessary for the exploration, production and development of geothermal energies.
- 10. That some method be developed whereby geothermal resources could be patented.

The ones present expressed the realization that many of the things spoken of above would involve legislation and that, in many cases, could not actually be granted, however the points covered would present problems. Indications were that further meetings would be called but no such action has been made. I was happy to note that Mr. Bettwy attended this meeting in person and exhibited concern as to geothermal problems within the State. He did specifically point out that the State now has available non-competitive geothermal leases. He further pointed out that leasing in the KGRA areas would not be done for some time, inasmuch as he desired "the Federal government" to make the first mistake.

Memo: Commissioners June 11, 1975 Page Three

I attended the meeting of the Independent Petroleum Association of America held June 7, 8, 9 and 10, 1975. As usual at this type of meeting, many papers of varying interest were presented. The most prominent speakers were the following: Robert C. Krueger, Congressman from Texas; Edward Symonds, Deputy Assistant Secretary, Department of Treasury; William Ketchum, Congressman from California; James R. Jones, Congressman from Oklahoma; and Governor David I. Boren, Governor of Oklahoma. The themes of these speakers presentations were quite similar - that America can become strong, can become energy independent, and that the oil industry and independent oil producers can do the job if the Government does not intervene and stifle competition through regulation.

It is interesting to note that the Special Materials Committee reported that casing and tubing have become much more available since February of this year and that most other steel products needed by the industry seem to be increasingly more available.

The Supply and Demand Committee indicated that the Nation will need to import an additional 228,000 barrels of oil per day, which will raise the needed import figure 6.3 million barrels daily. However, the committee felt the total domestic demand will decline slightly from the 1973 peak year. The total 1975 demand will be up .5% over 1974 however, with the United States meeding some 16.7 million barrels of oil per day. Of this amount, the United States will produce approximately 10.5 million barrels per day.

The Cost Study Committee indicated that the per footage cost of drilling and equipping wells in the United States continued upward in 1974-75, with the cost rising some 21.3%. Total cost of a well rose 12.2% in the same period.

For your information, I am enclosing a small pamphlet produced by IPAA for distribution.

I think that this particular IPAA meeting will prove quite profitable to Arizona. In talking with the various operators, a Mr. Elmore A. Willets, Jr. of Wichita Industries from Pittsburgh, Pennsylvania, indicated a great interest in Arizona and said that in the very near future a partner, "unidentified", will contact this Commission with the intention of doing some seismic and other exploratory work in the State. Mr. Willets indicated that at this time he does control some oil and gas leases in the Flagstaff area.

In addition, Mr. Alan Livingston, who has a family investment company, indicated interest in Arizona and promised to visit us in the near future, together with his geologist. In my opinion, both of these contacts will probably continue.

Memo: Commissioners June 11, 1975 Page Four

It is interesting to note that Mr. Brian Williamson from Edinburgh, Scotland is making his home in San Francisco, representing the Royal Bank of Scotland. He is there to help those deciding to engage in exploration of the North Sea area. He indicated a great interest in Arizona's regulatory efforts and said he would visit Arizona some time in October to more familarize himself with our leasing and regulatory efforts. While this in no way will result in exploration for our State, it does indicate the interest that has been developed in Arizona's regulatory system.

The Interstate Oil Compact Commission meets June 22nd in Charleston, West Virginia and I will attend this meeting, as previously approved.

Rhema Brandt has terminated her employment with the Commission as of June 6th. Rhema is looking forward to her motherhood and indications are she will not return to work. Mr. Allen has hired Saralee Lorenzo to replace Rhema.



Oil and Gas Conservation Commission

STATE OF ARIZONA

8686 N Central Suite 106

PHONE: (602) 271-5161 Phoenix, AZ 85020

ACTIVITY REPORT

June 10, 1975

Memo from W. E. Allen, Director Enforcement Section

A recent Geothermal Resource Bulletin indicates that 3240 acres of Federal land in Arizona has been designated as K.G.R.As. A 2460 acre area is near Gillard Hot Springs, some 10 miles SW of Clifton. The remaining 780 acres is just north of Clifton. Both areas are in Greenlee County. The areas were designated KGRA because the BLM received more than one application for each parcel.

The nationwide drilling boom, (exclusive of Arizona) appears to be losing some of its momentum. Several major companies have announced cutbacks in their drilling programs and the independents say that they will cutback when their accountants warn that they have reached the point for which more spending will penalize them on depletion. Uncertainty of what will happen to them is the biggest hangup for independents trying to operate these days. Some report they will take a long vacation until the air clears. They will hold off starting new wells and new deals which will delay sales until they know what price to place on leases. Buyers will hold off until they know what prices to pay.

It has come to our attention that certain companies in concert with some municipalities and universities are conducting experiments to determine the feasibility of recovering methane gas from the various landfills in Phoenix and Tucson. This gas, when recovered, would be used to supplement the supply of natural gas which is currently in short supply.

In order to recover this methane gas from the landfills, it is necessary to drill holes to a depth ranging from 30-40 feet, perhaps deeper. Perforated casing will then be inserted in these holes and with the assistance of a vacuum pump or some other device, the gas will be brought to the surface where it will be treated, if treatment is necessary, and then distributed for use in whatever way is practicable.

Activity Report June 10, 1975 Page 2

I have discussed this experimental operation with the Attorney General's office and have requested an official opinion concerning this commission's responsibility and authority in this situation (related news items are attached to this report).

Williams Energy has been issued permits to drill 3 additional storage wells at the Adamana Storage Project.

St. Joe American Exploration Company has been issued 2 permits to continue their potash exploration program.

Duval has also been issued 2 permits for potash tests. Duval's activities are currently being conducted well outside the known helium producing areas. However, for reasons of their own, they are still submitting Applications to Drill and we are issuing permits. This arrangement insures that we will receive the geological information that is acquired from the drilling of these test holes.

Clinton Oil has commenced the drilling of the Navajo "0" #3 located in the SW/SW/4 - S 23, T 41N, R 30E, Apache County.

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OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

PHOENIX, ARIZONA 85019
PHONE: (602) 271-5161
ACTIVITY REPORT

June 11, 1975

J. N. Conley Director, Geology Section

PUBLICATIONS

Sales for the past month, totaling almost \$100.00 were made to:

Mapco Diversified, Inc., Denver
J. D. Glynn, Houston
Alfred T. Morgan, Yuma
Pacific Associates, Phoenix
Shirley Thompson, Oklahoma City
Willard D. Pye, Tucson
Fugro, Inc., Long Beach
Western United Mines, Inc., Salt Lake City
Cochise Ltd., Houston
Beard Oil Co., Denver
O. D. Brame, Ft. Walton Beach, Florida
David Sulphin, Tucson
TRW, Redondo Beach

Requests for publications were received from six academic institutions in such states as Florida, Utah, California, and Texas.

INVESTIGATIVE PROJECTS

Structure Map of Folds in Phanerozoic Rocks within the Colorado Plateau Tectonic Province of Arizona. This is the title selected by Dr. George H. Davis, Department of Geosciences, University of Arizona, for the "macrofold" map project. Completion of all copy-ready material for this map is scheduled for June 25. The printing cost, and most of the cartographic expense, will be paid by the Office of Arid Lands Studies (OALS), University of Arizona. This is a joint project by the Department of Geosciences and OALS, University of Arizona, and our Commission, and Arizona Resources Information System.

Supplementing the map, OALS will print later this year a 66+ page bulletin written by Dr. Davis.

Well Location Map 9, Colorado Plateau. This map and the companion explanatory text and well-data tabulation are now being distributed to state and federal governmental agencies and state academic institutions.

Holbrook Area Well Location Map A-1. The reproducible base of this map has been updated to June 1, 1975. The companion well-data tabulation will be printed before the end of this fiscal year.

Activity Report June 11, 1975 Page 2

Holbrook Area Geological Map G-7. Posting the numerous top of Coconino (Coconino-Glorieta and Coconino-DeChelly undifferentiated in the easternmost portion of the mapped area) sea level datums will be completed soon.

Paleozoic "Folio". This project involves the preparation of a series of thickness, structure, and facies maps of several of the geologic periods, plus a contour map on top of the basement rocks underlying the Paleozoic rocks. The first map will be the thickness of the entire Paleozoic interval present in the Colorado Plateau province of Arizona. The second map will be the one on top of the basement surface. Barring unforeseen difficulties, we expect to complete the basic research and data assembly required for each map next month.

EXPLORATION - ENERGY RESOURCES

Geothermal. In addition to the terrestial heat flow studies in eastern Arizona and western New Mexico being conducted by a research group in the Department of Geosciences, New Mexico Institute of Mining and Technology, Socorro, New Mexico, and the studies being conducted by the U. S. Geological Survey in the San Francisco Peaks volcanic field, I have heard rumors that another federal agency, Energy Resources Development Administration (ERDA), is funding, or will fund, an investigation of geothermal resource potentialities of southern Arizona.

At the recent American Association of Petroleum Geologists meeting in Albuquerque, New Mexico, L. K. Lepley presented a paper prepared by him and A. K. Doss entitled, "The Use of Earth Resources Technology Satellite, Aeromagnetic, Gravity and Thermal Data for Mapping Geothermal Resources." Some of our work was utilized by Lepley and Doss. We have also been instrumental in getting several remote sensing investigations in Arizona performed by the University of Arizona.

Lease Sales - Federal Government. Thirteen sales of leases in Known Geothermal Resource Areas (KGRA) are scheduled for the balance of this calendar year. Five of the areas are in Oregon and the remainder in other western states, excluding Arizona.

<u>Uranium</u>. ERDA plans to cover the entire United States with airborne radiation surveys over the next few years. The program is designed to provide better information for assessing the Nation's uranium resources and for identifying areas favorable for uranium occurrences.

Exxon Company, U.S.A., has completed a photogeologic study followed by a reconnaissance drilling program on optioned New Mexico and Arizona Land Company lands in Arizona.

The Arizona Bureau of Mines is also investigating the uranium resources of Arizona under a grant from the U_{\bullet} S. Bureau of Mines.

Petroleum. I know of no active "on-the-ground" exploration for petroleum in the state at this time. Based on continued requests for our publications from geologists, oil companies, consulting engineering and geological firms, I am assuming that at least some long-needed consideration is being directed toward the state's potentialities.

Activity Report June 11, 1975 Page 3

A. K. Doss, State Land Department, reports that a considerable volume of oil and gas leases have been issued recently on lands in Mohave County containing petroleum-impregnated rocks in the Strip Country portion of Mohave County. I do not have the location of these leases, but I assume that they are in the known areas where such rocks occur. The largest two areas are:

- 1) Black Rock Canyon T. 40 & 41 N., R. 13 W. asphalt in seams and veins in the Permian Kaibab Formation and along its irregular contact with the underlying Triassic Moenkopi Formation
- 2) Southwest Black Rock Canyon T. 40 N., R. 13 W. bituminous material in veins and other openings in a crushed zone in the Lower Triassic Moenkopi Formation.

Extraction of petroleum from these rocks will necessitate strip mining and in situ combination methods.

Webb Resources has informed me, orally, that it hopes to move a rig to the Holbrook area in August to drill seven wells.

GENERAL

According to the Oil and Gas Journal's Newsletter, May 19, 1975, drilling for oil and gas in the United States showed a 19.2% increase over 1974. A total of 31,698 wells were drilled in 36 states. The total footage drilled exceeded 150 million feet, an increase of 14 million. Of the 5,652 new-field wildcat wells, almost 86% were dry holes, 6% found some oil, and 8% some gas. Of the 33,079 development wells, 5,064 (22%) were dry holes.

The anticipated adverse affects of the Energy Tax Bill enacted earlier this year are beginning to materialize. All of the major oil companies are having to reduce capital spending. Exxon Company, U.S.A., for example, has announced that its spending will decrease by about \$200 million in 1975, or the equivalent of 15% of the company's expenditures a year ago. Drilling contractors are stacking rigs.

A news item in the Wyoming Geological Association's NEWSLETTER, June, 1975, states: "There seemed to be fewer employment opportunities in the petroleum industry during the last month, which may be a reflection of industry's uncertainty precipated by hostile actions in Washington."

Major companies, and independents, are of necessity going to have to spend their available exploration dollars in those areas offering the best chances of finding new reserves. As a strictly frontier area, Arizona is not apt to get any of these exploration dollars.

One bright spot at the federal level is the Senate's confirmation of Stanley Hathaway, ex-Governor of Wyoming, to replace Rogers C. B. Morton as Secretary of the Department of the Interior. Hathaway is familiar with the problems of both the oil and coal industries.

VISITORS

Visitors exhibiting a genuine interest in the petroleum possibilities of Arizona this past month were limited. Most of the visitors were representatives of mining companies, salesmen, and graduate students.

JNC:os

AGENCY Oil & Gas Conservation Comm DIVISION. IDENTIFICATION CODE NO 1 2 3 CLAIMS PAID OBJECT CLAIMS PAID DISTRIBUTION OF EXPENDITURES YEAR TO DATE MONTH OF CODE NO. CLASSIFICATION may 1975 7111 Commission Members Per Diem: 2,250 00 180 00 7112 Salaries: 101,982 57 Employees 2 13,213 3 3 7151 4 334// Industrial Insurance 4 7152 5 Unemployment Insurance 5 203 35 5,292 76 7153 6 F.I.C.A. 6 776 50 5,85411 <u>7155</u> _7_ Retirement 75845 1,26000 <u>7156</u> <u>Health Insurance</u> 120 00 28875 7159 Personnel Comm Ò 10 10 7215 11 <u>Professional Services:</u> Engineer 11 2,817 44 7219 <u>Professional Services:</u> Other 12 12 13 13 7221 Travel-State: Mileage 1,37766 14 7222 3 073 50 15 Subsistence 15 168 7223 Public Transportation 120 38 16 16 7224 2,133 96 17 Vehicle Expense 17 118 5.5 7225 Reg. Fees; Parking; etc. 468 45 18 18 00 19 19 7232 Travel-Out of State: Subsistence 20 20 827 00 7233 Public Transportation 21 21 453 08 7234 22 Airport Parking 22 7235 23 Reg. Fees; Telephone; etc. 23 424 45 24 24 19,44867 7251 25 Occupancy: Office Rent 25 1,603 7261 Warehouse Rent 26 26 7263 27 Maintenance & Repairs 27 7272 Mtn. & Repairs: Furniture & Equipment 28 28 475 00 Office Supplies Orthophoto Quads. 7280 29 -2,712 24 29 208 7280.1 30 30 1198 50 Field Supplies: Film; Am.Strat; P.I.; etc. 7300 375 66 70 05 Printing: Reports; Large Maps; etc. 702 26 <u>7331</u> 493 50 <u>7332</u> 33 52406 <u>Legal Advertisement</u> 7333 Court Reporter 104 50 34 34 35 742 84 7334 <u>Postage</u> 20330 2,699 63 7335 36 Telephone 36 530 64 7337 37 Drayage; Express; etc 61 80 37 7339 38 124 80 Rental, Misc 38 <u>7360</u> 39 Dues & Subscriptions 39 Move Office Furniture & Equip.
Capital Outlay: Office Equip. 7390 40 273 27 7431 497 87 41 41 7434 Spec. Equip. (Geol.) 42 42 7436 Automobile 43 43 3,533*5*/ 44 44 7913 45 Revolving Fund 45 250 46 46 47 47 48 48 49 49 50 50 51 51 52 52 53 53 54 54 55 55 164,958 70 TOTAL 18,488 89

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OFFICE OF

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Oil and Gas Conservation Commission

STATE OF ARIZONA

BYKUKATROXBIXK PHOENIX, ARIZONA 353(13)X PHONE: (602) 271-5161

A G E N D A

Meeting May 16, 1975 8686 North Central Avenue, Suite 106 Phoenix, Arizona 85020

10:00 a.m.

Call to Order

- 1. Approval of minutes of meeting of April 21 1975
- 2. Report of Executive Secretary
- 3. Report of Enforcement Section
- Report of Geology Section
- Old Business
- New Business
- 7. Adjourn

IF YOU ARE UNABLE TO ATTEND THIS MEETING, PLEASE NOTIFY THIS OFFICE AS SOON AS POSSIBLE.

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OIL AND GAS CONSERVATION COMMISSION 8686 North Central Avenue Suite 106 Phoenix, Arizona 85020

> Minutes of Meeting April 21, 1975

Present:

Absent:

Mr. Ralph W. Bilby, Chairman Mr. W. Roger Hafford,

Vice Chairman Dr. G. E. H. Ballard, Member

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Mr. F. Keith Benton, Member

Mr. Robert A. Bledsoe, Member

The regular Commission meeting for the month of April, 1975 was called to order by Chairman Ralph Bilby at 10:00 a.m.

Minutes of the meeting of March 21, 1975 were approved as written.

Reports of Executive Secretary, Enforcement Section and Geology Section were accepted.

Executive Secretary advised that the move to the new quarters has now been completed. The earth samples are now in storage. The lease for the office space covers a three year period with a 90-day cancellation clause by either party, and the lease form has been approved by the Attorney General's Office and the Planning Office.

General discussion followed on various bills of interest to the Commission which are being considered by the Legislature.

Dr. Ballard stated for the record that he is in favor of consolidation of agencies into a natural resources agency.

Chairman Bilby stated that the minutes should show that the members of the Commission are pleased with the new quarters and the staff is commended on the expeditious move.

Executive Secretary read copy of a letter from Governor Castro to Mr. W. Timothy Dowd of the Interstate Oil Compact Commission wherein Governor Castro advised that the 1974 appointments would remain in effect and that he would like to suggest that Mr. Hal Butler and Dr. G. E. H. Ballard be named to serve on a committee of their choice, should they be willing. After discussion, Dr. Ballard advised that he would respond in a negative manner unless at some future time the Commission feels that it would be important for him to serve.

Minutes of Meeting April 21, 1975 Page Two

Dr. Ballard advised that the term "minerals" should be watched very closely in certain legislative bills, as the proper term should be "organic and inorganic fuels and minerals".

It was moved and approved that the Executive Secretary attend June meetings of the Independent Petroleum Association of America in San Francisco, California and the Interstate Oil Compact Commission in Charleston, West Virginia.

Next regular meeting will be May 16, 1975.

Meeting adjourned at 10:45 a.m.

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APPROVED

May 16, 1975

Ralph W. Bilby, Chairman

Also present:

Dr. Joseph F. Schreiber, Jr. Department of Geosciences University of Arizona Tucson, Arizona



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

45XXNDXXNXXXXXE-PHOENIX, ARIZONA \$5013 PHONE: (602) 271-5161

May 5, 1975

Memo: Commissioners

From: John Bannister, Executive Secretary

Since our meeting on April 21, 1975, the staff has pretty well gotten settled in the new quarters and the few housekeeping problems are being solved. The next time you come to the office, please note the Commission's sign on the billboard between the two buildings.

The Legislature has demanded much of the staff's time. It appears at this point that the Legislature will try strenuously to adjourn around May 16 or May 23rd, however it will probably be the end of the month before this can actually be accomplished.

We appeared before the House Natural Resources Committee on SB 1032, which reduces the depletion allowance on oil and gas from 27½% to 22%. The bill failed to pass this committee and consequently will be dead for this session.

Senate Bill 1123, which added additional 4% severance tax on the production of oil and gas, among other commodities, has failed to pass out of the Senate and apparently is dead.

House Bill 2066, which established a State Bureau of Geology and Mineral Technology under the University and which was a bill sponsored by the Arizona Bureau of Mines, has been assigned to an interim study committee of the House and will not be acted upon this year.

House Bill 2110, establishing a Department of Energy consisting of the Arizona Power Authority, Atomic Energy and Oil and Gas Conservation Commission, has not come out of the House and appears to be dead at this time.

Senate Bill 1326, which establishes a Department of Geology and Mineral Resources and which includes the Arizona Bureau of Mines, Department of Natural Resources and the Oil and Gas Conservation Commission, has been amended to exclude the Oil and

Memo: Commissioners May 5, 1975 Page 2

Gas Conservation Commission. However, as now amended, we will be a member of the Policy Board established for the department. It is felt at this time that Senate Bill 1326 will not come out of the Senate and consequently will not be enacted.

Senate Bill 1373, a broad bill establishing a State Energy Resources Commission, does not affect the Oil and Gas Conservation Commission directly, however many of the duties of this suggested commission conflict with charges to the Oil and Gas Commission. Again, this bill apparently will not come out of the Senate and consequently will not be enacted.

Senate Bill 1239, the incentive bill sought by the Commission, was held over by the Senate Finance Committee this date. It is felt that the bill will not come out of the Committee.

Mrs. Rhema Brandt will be leaving the Commission at the end of May. Her plans are to retire to motherhood. We are at this time starting a search for her replacement.

Word from the Joint Budget Committee is that the Joint House and Senate Conference Committee on the Budget has agreed to the proposed Senate figure of \$174 thousand + for the Commission for the 1975-76 fiscal year. This is some \$2 thousand lower than we had previously been advised. Plans will be made to offset this figure.

On April 23rd the Senate approved Governor Castro's appointment of Mr. Hal Butler as a member of the Commission, replacing Mr. Robert A. Bledsoe. Mr. Butler has indicated that he will attend the May meeting.



Oil and Gas Conservation Commission

STATE OF ARIZONA
4516WXXXXXXXXX
PHOENIX, ARIZONA 85013

PHONE: (602) 271-5161

8686 N. Central Suite 106 Phoenix, AZ 85020

ACTIVITY REPORT

May 6, 1975

Memo from W. E. Allen, Director Enforcement Section

The last five days of the week of April 20 were spent in the field. Nothing of an unusual nature was observed on this trip. All operators are adhering to regulations.

There are still several wells to be plugged in the East Boundary Butte area. The abandonment of these wells is causing no problem either subsurface or surface wise and they are adequately bonded. The delay in plugging is caused by the scarcity of rigs.

The plugging of the wells drilled by American Fuels is an exception to the above, however, I do not believe these five wells will cause any problem insofar as the Commission is concerned. The Navajo Tribe has taken over all but one of American Fuel's wells. This came about because of expiration of the leases. The Tribe has not reached a decision on the future of these holes. I've been told that they are considering the possibility of attempting to complete the wells themselves or else put the acreage involved and the wells up for competitive bidding. Anyway, for all practical purposes the Tribe has assumed the responsibility of these wells. You will recall that American Fuels has a \$25,000 cash bond with the Commission.

Clinton Oil Company has not spudded their well to be drilled in the SW/SW Section 23-T41N-R30E, Apache County due to a rig shortage.

We still have not received a bond from Morton Brothers to cover a well to be drilled 9 miles northeast of Heber in Navajo County. I have it on good authority that Morton Brothers are still picking up acreage in this area, so maybe we will get this "off reservation" test drilled.

A permit has been issued to Duval for the drilling of a potash test in the SE/NW Section 34-T16N-R21E, Navajo County. This is some 12 miles southwest of the town of Holbrook.

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Activity Report May 6, 1975 Page 2

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Beta Exploration, Inc. from Denver, Colorado has filed an application to re-enter a well originally drilled by Continental Energy Company, later re-entered by Republic Minerals and a second re-entry attempt was made two years ago by Zoller and Danneberg. The well is located in the SE/SW Section 19-T36N-R30E, Apache County. It is located within the geographical boundaries of the Dineh-bi-Keyah oil field. Beta has acquired leases on Sections 17, 18, 19 and 20, all in Township 36N, Range 30E.

Senate Bill 1326 establishing a Department of Geology and Mineral Resources came up for a hearing in the Senate Natural Resources Committee yesterday. I attended the hearing on this bill and as expected, it was killed.

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Oil and Gas Conservation Commission

STATE OF ARIZONA

4519 NORTH-7TH-AVE: 8686 N. Central Ave., Suite 106 PHOENIX, ARIZONA \$5013 85020 PHONE: (602) 271-5161

May 6, 1975

J. N. Conley Director, Geology Section

PUBLICATIONS

Sales this month were low, amounting to only \$31.50. Most of these sales were made to two Denver geologists.

INVESTIGATIVE PROJECTS

Photogeologic Analysis of Macroscopic Folds in the Colorado Plateau Province, Arizona. Dr. George H. Davis, Department of Geosciences, University of Arizona, principal investigator, has not completed proofing the drafting of the fold and other geologic data onto the final copy-ready plates. However, he has just about finished the 40-odd pages of text to accompany the map.

Carl Winikka, Director, Arizona Resources Information System, reports that he has received negatives of the four plates used by the U. S. Geological Survey in printing the Satellite Image map of Arizona. Barring presently unforeseen cartographic problems, Davis' geologic data will be printed on this satellite image base.

Well Location Map Nine. This map has been printed. Copy of the companion text and well-data tabulation has been delivered to the printer.

Holbrook Area, Permian Coconino Structure Map. The drafting phase of this project is underway. All of the data is being checked for accuracy before proceeding with the final structural interpretations.

Paleozoic Era Thickness Map. In preparation; research and data assembly should be completed early in July of this year.

Terrestrial Heat Flow Studies in Eastern Arizona and Western New Mexico. As mentioned in previous reports, this project is being performed by a group in the Department of Geosciences, New Mexico Institute of Mining and Technology, New Mexico. A progress report by Charles R. Shearer, Marshall A. Reiter, and C. L. Edwards is being presented at the June 3 meeting of the American Association of Petroleum Geologists and the Society of Paleontologists and Mineralogists in Albuquerque, New Mexico. The abstract of the report follows:

"Subsurface equilibrium temperature logs have been made in thirty-six new drill tests in eastern Arizona and western New Mexico in order to further study the geothermal pattern of the Colorado Plateau and Basin and Range provinces. Approximately twenty of these logs are expected to result in valuable estimates of terrestrial heat flow. The following general conclusions may be made based upon present data: (1) Broad areas of the Colorado Plateau in eastern Arizona appear

Activity Report May 6, 1975 Page 2

to be characterized by heat flow values of approximately 1.2-1.6 HFU; however, we recognize a high heat flux area in east central Arizona which appears to be a continuation of the high heat flow area in west central New Mexico (Reiter and others, GSA Bulletin, in press). (2) In southern Arizona the geothermal transition between the Colorado Plateau and Basin and Range provinces appears to occur south of the Mogollon Rim and, in some locations, a geothermal character like that of the Colorado Plateau appears to extend into the Basin and Range a distance of 100 to 150 kilometers."

We have assisted in this project by furnishing the group several sets of Arizona well samples for thermal conductivity measurements.

VISITORS AND INQUIRIES

Theodore Sheldon, geologist, Trio-Petro, Inc., was in our office for three days recently, checking well and geologic data in several areas in the Colorado Plateau province of the State.

Dean Smith, oil and gas lease broker, Scottsdale, Arizona, was in the office twice this past month. He examined the records of several wells in Cochise County.

James O. Breene, Jr., independent geologist and operator, Denver, Colorado, purchased several more copies of our Report of Investigation 3, A Geophysical and Geological Investigation of Potentially Favorable Areas for Petroleum Exploration in Southeastern Arizona. To date he has purchased 10 copies of this publication. One of the areas he appears to be interested in is the "Sonoita Basin" in southeastern Pima County and northeastern Santa Cruz County.

George Potter, Phoenix, called recently about the "Sonoita Basin." He was interested in its petroleum potential and requested that we send a copy of our Report of Investigation 3 to Bruce Pearson, a consulting geologist in Midland, Texas. We have subsequently received a request from Pearson for literature references pertaining to the Paleozoic rocks exposed in the Whetstone Mountains.

GENERAL

"Sonoita Basin". This is an areally small topographic basin surrounded by the Empire, Whetstone, Huachuca, and Canelo Hills Mountains. Gravity, aeromagnetic, and drill-hole information indicate that it could contain a thick section of Cretaceous and Paleozoic rocks. Rocks of these ages are exposed in the surrounding mountains. Of exploratory interest, the lowermost 4,500 feet of a Cretaceous section exposed in the Whetstone and Huachuca Mountains consist predominantly of petroliferous black shales. The deepest test hole drilled to date penetrated about 4,400 feet of Lower Cretaceous sedimentary rocks but failed to reach the petroliferous black shale section.

Minerals Exploration Company, a subsidiary of Union Oil Company of California, has borrowed our set of samples of the El Paso Natural Gas Company's 1 Red Lake-Federal, sec. 22, T. 26 N., R. 16 W., Mohave County. This well is one of three that penetrated a salt mass at least 4,000 feet thick.

In previous reports I have mentioned that Jack Grynberg & Associates have a lease block of approximately 600,000 acres north of T. 35 N. between the Grand Wash and Hurricane faults and that they do geological and geophysical work to develop

Activity Report May 6, 1975 Page 3

prospects and then promote drilling exploration. They currently have a joint venture underway with Gulf Oil Company in the Paradox basin area of southwestern Colorado. At least 15 wells will be drilled on the 140,000 acres of leases owned by Jack Grynberg & Associates. Gulf will pay exploratory drilling costs to a maximum of \$3 million, at which point it will have earned a 50% interest in the acreage block.

As predicted by oil industry spokesmen and oil-bank economists, loss of the 22% depletion allowance has already seriously affected the market for risk capital necessary for exploratory drilling in the United States. True Oil Company, one of the most aggressive and successful small oil companies in the Rocky Mountains, told a Senate sub-committee recently that oil well drilling in Wyoming had declined by 16% within a 30-day period. Normally, drilling rates increase appreciably in this region with the advent of Spring weather.

In addition to the loss of the depletion allowance, the slowdown is related to the threats to eliminate allowances for intangible drilling costs, for reclassifying "old" and "new" oil for possible price rollbacks, and dropping the price for new oil produced by expensive secondary recovery methods in old fields.

According to reports I get from oil friends in Denver, Colorado, and Casper, Wyoming, several major oil companies are quietly passing the word that they're "sitting tight" until Congress makes up its mind. Meanwhile, the momentum of the sorely needed oil search, which reached a peak in late 1974, will be lost. Exploration for new domestic reserves on a curtailed basis will be largely restricted to traditional producing areas and not to frontier areas such as we have in Arizona.

The U. S. Department of the Interior has announced that a new unit, the Office of Lands Information and Analysis (LIA) has been established by the Geological Survey. The largest program to be incorporated in the new office is the EROS (Earth Resources Observation Systems) program of the Interior Department and managed by the Survey. This is a program of interest to all geologists. Since 1966 it has been carrying out numerous experiments using images and photos obtained from the LANDSAT satellites, from Skylab, and from high-altitude aircraft (U-2) in a wide variety of natural resource and environmental studies. Arizona has been fortunate in being the site for many of these studies, particularly with respect to the production of 7½-minute orthophoto base quadrangles covering the entire state and the satellite image map of the state.

Other Survey programs and activities consolidated within the new office include:

Urban Area Studies (UAS)
Land Resource and Analysis (LRA)
Geographic Applications Program (GAP)
Land Use Data and Analysis (LUDA)
Resource and Land Investigations (RALI)
Environmental Impact Analysis (EIA)

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Marie Park

MONTHLY FINANCIAL REPORT RECEIPTS TOTAL RECEIPTS APPROPRIATED UNAPPROPRIATED MONTH OF ALL RECEIPTS RECEIPTS RECEIPTS CLASSIFICATION YEAR TO DATE Permits to Drill 475 4 7 8 9 10 11 12 13 14 15 16 17 OC TOTAL CURRENT MONTH RECEIPTS TRANSFERS IN XXXXX BALANCES BROUGHT FORWARD TOTALS - MONTH AND YEAR TO DATE 9 7 8 10 11 CLAIMS PAID TOTAL AMOUNT EXPENDITURES CLAIMS PAID **OUTSTANDING** UNENCUMBERED MONTH OF AVAILABLE YEAR TO DATE FUND TITLES BALANCE **ENCUMBRANCES** april 1975 YEAR TO DATE Personal Services 90,839 28 116 700 00 25,860 Emp. Related Exp. 15,20000 11, 578 13 27,648 16 3 Other Operating Exp. 35,470 93 2,748 5,574 4 Prof. & Outside Serv 2817 44 4,535 85 4718 5 Travel - State 9,900 00 6,349 87 2,105 46 6 Travel - Out of St. 00 3,200 00 2,705 55 494 7 Cap. Outlay - Equip. 308 55 4,100 00 4,031 38 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 TOTALS

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OFFICE OFFICE

TOTAL

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FIELD



Oil and Gas Conservation Commission

STATE OF ARIZONA 8686 N. Central Ave. 4515 NORX WXXXXX PHOENIX. ARIZONA XXIII PHONE: (602) 271-5161

May 27, 1975

Memo: Commissioners From: John Bannister

We have been advised of a further reduction in the 1975-1976 budget. This reduction comes under "Personal Services". The reclassication of one employee was not allowed except as we might be able to cover this within the allocated monies. Fortunately, this can be done due to the fact that Rhema Brandt will be leaving and her replacement will come in at Step 1. No merit raises will be allowed this year.

The most startling cut was for the services of our five Commissioners. We have been allowed a total of only \$1,700 for Commissioner salaries. The normal meeting, particularly in the summer, averages \$300, i.e., two Commissioner days per meeting.

I immediately contacted the Joint Legislative Budget Committee and was advised that they anticipated the Commissioners should meet no oftener than six times a year, i.e., every other month or as directed by the Commissioners. I feel that this is not a satisfactory arrangement. However, in view of the State's financial situation, there apparently is no other course available. Consequently, at our June meeting I feel it is obligatory that we discuss the timing of future Commission meetings.

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San Francisco Offices
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JUN 1 8 1975 Q & G CONS. COMM.

San Francisco Office June 16, 1975

Mr. John Bannister
Executive Secretary
Oil and Gas Conservation Commission
State of Arizona
8686 N. Central Avenue
Phoenix, Arizona 85020

Dear Mr. Bannister:

Thank you very much for your letter of June 11. I also enjoyed our conversation during lunch the final day of the IPAA Convention.

For your own information, I am also ordering, by separate mailer, a number of the publications currently available concerning petroleum exploration in the State of Arizona. It is very possible that some time in the near future I will be in the Phoenix area and if so, I would very much like to get together with you and discuss the subject in more detail.

Again, thank you very much for your kind letter and I am hoping that we may see each other in the not too distant future.

III

Sincerely yours

President

Alda, Inc.

P.S.

I just got through talking with a geologist in Shreveport, Robert Breedlove, who has done quite a bit of work in the past in the San Juan Basin. He mentioned that he knew you and I said I would enclose his regards in my letter.

ANL/mg

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Brian D Williamson Representative

The Royal Bank of Scotland Limited A member of the National and Commercial Banking Group Representative Office The Pyramid 600 Montgomery Street San Francisco California 94111

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JUN 1 9 1975

O & G CONS. COMM.

telephone: (415)-392-5225 cable address: Royscotbnk San Francisco telex: 470494-RBSF-UI

date June 16, 1975

Mr. John Bannister Executive Secretary Oil and Gas Conservation Commission State of Arizona 8686 N. Central Avenue - Suite 106 Phoenix, Arizona 85020 The Royal Bank of Scotland Limited

Dear John:

Thank you for your kind letter of the 11th of June following our recent meeting at the I.P.A.A. Conference.

As I mentioned to you, I am returning with my family to Scotland tomorrow for a short vacation, but on my return on Independence Day I shall firm up my travel plans to Arizona. I should welcome any profitable introductions that you could give to me and I shall certainly be in touch with you near the time.

I am looking forward to meeting you again and perhaps I might have the opportunity of viewing your "citrus tree!" $\,$

Best personal regards.

Yours sincerely,

Brian D. Williamson Representative

BDW:db

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